

IN THE CLAIMS

1. (withdrawn) A composition comprising:
a metal-chelating ligand including a tetraazacyclododecane macrocycle ring core, and
at least two non-identical substituents covalently bonded to the ring core, wherein each
of the at least two non-identical substituents contain a group capable of binding to a cell
receptor.
2. (withdrawn) The composition of claim 1 wherein at least one of the non-
identical substituents is covalently bound to a ring nitrogen.
3. (withdrawn) The composition of claim 1 wherein at least one of the non-
identical substituents is covalently bound to a ring carbon.
4. (withdrawn) The composition of claims 1 wherein at least one of the non-
identical substituents are covalently bound to the ring via an alkyl linking group, an alkyl
carbonyl linking group, or an alkyl amide linking group.
5. (withdrawn) The composition of claim 1-4 wherein the tetraazacyclododecane
macrocycle ring core is chelated to a metal ion.
6. (withdrawn) The composition of claim 5 wherein the metal ion is selected
from the group of metals consisting of: La, Ce, Pr, Nd, Pm, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm,
Yb, Lu, Y, and Sc.
7. (withdrawn) A composition comprising a metal-chelating ligand including
tetraazacyclododecane macrocycle having one or more alkyl carboxylic acids or salts thereof
appended to the ring nitrogen(s), and

a α,β_3 receptor binding ligand covalently bonded to a ring nitrogen of the metal-chelating ligand via an alkyl linking group, an alkyl carbonyl linking group, or an alkyl amide linking group.

8. (withdrawn) The composition of claim 7 tetraazacyclododecane macrocycle includes two alkyl carboxylic acids or salts thereof each attached to one ring nitrogen.

9. (withdrawn) The composition of claim 7 wherein the alkyl carboxylic acid is acetic acid.

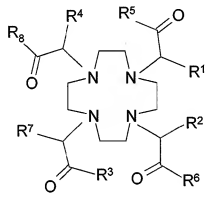
10. (withdrawn) The composition of claims 7 wherein the alkyl component of the alkyl carboxylic acid or salt thereof is a straight chain, a branched chain, cyclic or aromatic hydrocarbyl group having between 1-5 carbon atoms, and can be substituted with one or more of the following substituents, hydrogen, C1-C4 alkyl, C1-C4 branched alkyl or aromatic or heteroaromatic group or a combination of these groups.

11. (withdrawn) The composition of claim 7 wherein the alkyl amide linking group is $-(CH_2)_nCO_2-$ wherein n is selected to be between 1 and 6.

12. (withdrawn) The composition of claim 7 wherein the alkyl component of the alkyl linking group, the alkyl carbonyl linking group and the alkyl amide linking group is $-(CH_2)_nCO_2-$ wherein n is selected to be between 1 and 6.

13. (withdrawn) The composition of claim 7 wherein the alkyl component of alkyl linking group, the alkyl carbonyl linking group and the alkyl amide linking group is a straight chain, a branched chain, cyclic or aromatic hydrocarbyl group having between 1-6 carbon atoms, and can be substituted with one or more of the following substituents, hydrogen, C1-C4 alkyl C1-C4 branched alkyl, aromatic, or heteroaromatic group.

14. (withdrawn) The composition of claims 7 comprising a metal ion complexed to the tetraazacyclododecane macrocycle.
15. (withdrawn) The composition of claims 7 wherein the metal ion is radioactive.
16. (withdrawn) The composition of claim wherein the metal ion is selected from the group consisting of: La, Ce, Pr, Nd, Pm, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Y, and Sc.
17. (currently amended) A composition comprising: a metal-chelating ligand including a tetraazacyclododecane macrocycle having the formula:



where R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , and R^8 are selected from the group consisting of $-H$, $-OH$, $-CH_2G$, $-CH_2COOH$, and $-NH(CH_2)_nG$; n is an integer ranging from about 2 to about 6; and G is a guanidine substituent one or more alkyl carboxylic acids or salts thereof appended to the ring nitrogen(s); and

a guanidine substituent covalently bonded to a ring nitrogen of the metal-chelating ligand via an alkyl linking group, an alkyl carbonyl linking group, or an alkyl amide linking group.

18. (canceled)

19. (previously presented) The composition of claim 17 comprising a metal ion complexed to the tetraazacyclododecane macrocycle.

20. (currently amended) The composition of claim 17~~9~~ wherein the metal ion is radioactive.

21. (currently amended) The composition of claim 17~~9~~ wherein the metal ion is selected from the group consisting of: La, Ce, Pr, Nd, Pm, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Y, and Sc.

22. (withdrawn) A method of inhibiting tumor cell growth, said method comprising:

administering to the tumor cells an effective amount of a composition including a compound having a metal-chelating ligand including tetraazacyclododecane macrocycle having one or more alkyl carboxylic acids or salts thereof appended to the ring nitrogen(s), and a $\alpha_v\beta_3$ receptor binding ligand covalently bonded to a ring nitrogen of the metal-chelating ligand via an alkyl group linking group, an alkyl carbonyl linking group, or an alkyl amide linking group.

23. (withdrawn) The method of claim 22 wherein the composition comprises a radioactive metal ion chelated to the metal-chelating ligand.

24. (withdrawn) The method of claims 22 wherein the tumor cell is selected from the group consisting of osteosarcomas, neuroblastomas, glioblastomas, melanomas, and carcinomas.

25. (withdrawn) A method of inhibiting tumor cell growth, said method comprising administering to the cells a metal-chelating ligand including

tetraazacyclododecane macrocycle having one or more alkyl carboxylic acids or salts thereof appended to the ring nitrogen(s), and

a guanidine substituent covalently bonded to a ring nitrogen of the metal-chelating ligand via an alkyl linking group, an alkyl carbonyl linking group, or an alkyl amide linking group.

26. (withdrawn) The method of claim 25 wherein the composition comprises a radioactive metal ion chelated to the metal-chelating ligand.

27. (withdrawn) The method of claims 25 wherein the tumor cell is selected from the group consisting of osteosarcomas, neuroblastomas, glioblastomas, melanomas, and carcinomas.